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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,286	04/29/2005	Atsuo Okaichi	050222	6018
23850 7590 02/01/2008 KRATZ, QUINTOS & HANSON, LLP 1420 K Street, N.W. Suite 400 WASHINGTON, DC 20005			EXAMINER TRIEU, THERESA	
			ART UNIT 3748	PAPER NUMBER
			MAIL DATE 02/01/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/533,286

Applicant(s)

OKAICHI ET AL.

Examiner

Theresa Trieu

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Nov. 14, 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-13,15-23,26 and 29-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7-13,15-23,26 and 29-32 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/16/2007, 09/28/2007.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

This Office Action is responsive to the applicants' RCE filed on Nov. 14, 2007.

Claims 3, 14, 24, 25, 27 and 28 have been canceled. Accordingly, claims 1, 2, 4-13, 15-23, 26 and 29-32 are pending in this application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1, 4, 5, 7-11 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa (Publication Number JP 61-087984) in view of Suda (Publication Number JP 03-031598).

Regarding claims 1, 4, 5, 8-10 and 21, as shown in Figs. 1-3, Yoshikawa discloses a compressor comprising a compression mechanism being a rotary type for compressing working fluid, a rotational motor including a stator 7, a rotor 8 for driving the compression mechanism

and a container 9 for accommodating the compression mechanism and the rotational motor, in which the compressed working fluid flows from the compression mechanism to the rotational motor, wherein a space (not numbered; however, clearly seen in Fig.1) between the compression mechanism and the rotational motor 7, 8 is defined by a porous member 21 through which the working fluid passes; the porous member 21 being mounted on an element other than the rotor 8 and a shaft fixed to the rotor; the compression mechanism including a bearing member (not numbered; however, clearly seen in Fig. 1) which supports the shaft, and the porous member 21 being mounted on the bearing member; the compression mechanism including a bearing member which supports the shaft and an auxiliary bearing member which supports the shaft together with the bearing member from both sides of the shaft on the opposite side from the bearing member with respect to the rotor; the porous member 21 being made of porous material selected from the group consisting of porous metal; the porous member 21 being formed into a plate-like shape. However, Yoshikawa fails to disclose a central portion of the porous member is thicker than an outer periphery of the porous member.

Regarding claims 1 and 11, as shown in Fig. 1, Suda teaches that it is conventional in the compressor art to utilize the different thickness at the central portion and the outer periphery of the porous member 24 (see abstract). With regard claim 7, Suda further discloses the porous member 24 being mounted on an inner wall of the container 1. It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the central portion of the porous member being thicker than an outer periphery of the porous member, as taught by Suda in the Yoshikawa apparatus, since the use thereof would have provided oil easily flow towards the outside and the lower side.

2. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa in view of Suda as applied to claim 1 above, and further in view of Honda (Publication Number JP 61-155692).

The modified Yoshikawa discloses the invention as recited above; however, the modified Yoshikawa fail to disclose the material with made of the porous member.

Honda teaches that it is conventional in the compressor art to utilize the porous member is made of mesh selected from the group consisting of metal thin wire, glass wool and ceramic wool (see abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the porous member being made of mesh, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

3. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa in view of Suda and Honda as applied to claims 1 and 12 above, and further in view of Ikeda (Publication Number JP 58-085378).

The modified Yoshikawa discloses the invention as recited above; however, the modified Yoshikawa fail to disclose the mesh being enveloped by a plate member having an opening.

Ikeda teaches that it is conventional in the compressor art to utilize the mesh being enveloped by a plate mesh having an opening (see Figs. 2 and 3). It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the plate mesh having an opening, as taught by Ikeda in the modified Yoshikawa apparatus, since the use thereof would have prevent the corrosion, abrasion of a rotor and the choking of an orifice.

4. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa in view of Suda.

Regarding claims 15 and 16, Yoshikawa discloses the invention as recited above; however, Yoshikawa fail to disclose the material which made of the porous member. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the porous member being made of porous plate selected from the group consisting of: honeycomb and punching metal, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

Regarding claim 17, Suda discloses the porous plate 24 has holes, and a diameter of a hole closer to a central portion of the porous plate is smaller than that of a hole closer to an outer periphery of the porous plate (see abstract).

5. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa in view of Suda.

Yoshikawa discloses the invention as recited above; however, Yoshikawa fail to disclose the material which made of the porous member. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the porous member being made of non-magnetic material/ insulative material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa in view of Suda as applied to claim 1 above, and further in view of Matsumoto et al. (Matsumoto) (Patent Number 6,592,347).

The modified Yoshikawa discloses the invention as recited above; however, the modified Yoshikawa fail to disclose the working fluid being used as carbon dioxide.

The modified Yoshikawa discloses the invention as recited above; however, the modified Yoshikawa fails to disclose the working fluid is carbon dioxide. Matsumoto teaches that it is conventional in the art to utilize carbon dioxide being used as the working fluid (see abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the carbon dioxide, as taught by Matsumoto in the modified Yoshikawa apparatus, since the use thereof would have improved the performance and the efficiency of the compressor.

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa in view of Suda. Yoshikawa discloses the invention as recited above; however, Yoshikawa fail to disclose the compression mechanism is of a scroll type. It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the compressor mechanism being a scroll type in the Yoshikawa apparatus, since both types of compressors are shown to be conventionally utilized to compress a fluid/gas.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa (Publication Number JP 61-087984) in view of Suda (Publication Number JP 03-031598).

Regarding claim 2, as shown in Figs. 1-3, Yoshikawa discloses a compressor comprising a compression mechanism being a rotary type for compressing working fluid, a rotational motor

including a stator 7, a rotor 8 for driving the compression mechanism and a container 9 for accommodating the compression mechanism and the rotational motor, in which the container 9 includes a discharge pipe 20 on the opposite side of the compression mechanism with respect to the rotational motor 7, 8, and the compressed working fluid flows from the rotational motor to the discharge pipe, wherein a space (not numbered; however, clearly seen in Fig.1) between the compression mechanism and the rotational motor 7, 8 is defined by a porous member 21 through which the working fluid passes. However, Yoshikawa fails to disclose a central portion of the porous member is thicker than an outer periphery of the porous member.

Regarding claim 2, as shown in Fig. 1, Suda teaches that it is conventional in the compressor art to utilize the different thickness at the central portion and the outer periphery of the porous member 24 (see abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the central portion of the porous member being thicker than an outer periphery of the porous member, as taught by Suda in the Yoshikawa apparatus, since the use thereof would have provided oil easily flow towards the outside and the lower side.

9. Claims 23, 26, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa (Publication Number JP 61-087984) in view of Suda (Publication Number JP 03-031598).

Regarding claims 23, 26, 31 and 32, as shown in Figs. 1-3, Yoshikawa discloses a compressor comprising a compression mechanism being a rotary type for compressing working fluid, a rotational motor including a stator 7, a rotor 8 for driving the compression mechanism and a container 9 for accommodating the compression mechanism and the rotational motor, in

which the container 9 includes a discharge pipe 20 on the opposite side of the compression mechanism with respect to the rotational motor 7, 8, and the compressed working fluid flows from the rotational motor to the discharge pipe, wherein a space (not numbered; however, clearly seen in Fig.1) between the compression mechanism and the rotational motor 7, 8 is defined by a porous member 21 through which the working fluid passes; the porous member 21 being mounted on an upper bearing member, the bearing member being the compression mechanism and the rotational motor 7, 8. However, Yoshikawa fails to disclose a diameter of a hole closer to a central portion of the porous plate is smaller than that of a hole closer to an outer periphery of the porous plate and the material made of the porous member. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the porous member being made of porous plate selected from the group consisting of honey come and punching metal, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

Regarding claims 23 and 26 as shown in Fig. 1, Suda teaches that it is conventional in the compressor art to utilize the different the porous plate 24 has holes, and a diameter of a hole closer to a central portion of the porous plate is smaller than that of a hole closer to an outer periphery of the porous plate (see abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the different diameter of the hole at the central portion and at the outer periphery of the porous plate, as taught by Suda in the Yoshikawa apparatus, since the use thereof would have provided oil easily flow towards the outside and the lower side.

10. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa (Publication Number JP 61-087984) in view of Suda (Publication Number JP 03-031598).

Regarding claims 29 and 30, as shown in Figs. 1-3, Yoshikawa discloses a compressor comprising a compression mechanism being a rotary type for compressing working fluid, a rotational motor including a stator 7, a rotor 8 for driving the compression mechanism and a container 9 for accommodating the compression mechanism and the rotational motor, in which the container 9 includes a discharge pipe 20 on the opposite side of the compression mechanism with respect to the rotational motor 7, 8, and the compressed working fluid flows from the rotational motor to the discharge pipe, wherein a space (not numbered; however, clearly seen in Fig.1) between the compression mechanism and the rotational motor 7, 8 is defined by a porous member 21 through which the working fluid passes. However, Yoshikawa fails to disclose a central portion of the porous member is thicker than an outer periphery of the porous member and a central portion of the mesh is higher density than that of an outer periphery of the mesh and the material made of the porous member. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the porous member being made of mesh selected from the group consisting of metal thin wire, glass wool and ceramic wool, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

Regarding claims 29 and 30, as shown in Fig. 1, Suda teaches that it is conventional in the compressor art to utilize the different thickness/density at the central portion and the outer

periphery of the porous member 24 (see abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the central portion of the mesh is higher density than that of an outer periphery of the mesh, as taught by Suda in the Yoshikawa apparatus, since the use thereof would have provided oil easily flow towards the outside and the lower side.

Allowable Subject Matter

11. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior Art

12. The IDS (PTO-1449) filed on Oct. 16, 2007 and Sept. 28, 2007 has been considered. An initialized copy is attached hereto.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa Trieu whose telephone number is 571-272-4868. The examiner can normally be reached on Monday-Friday 8:30am- 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on 571-272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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TT
January 18, 2008

/Theresa Trieu/
Primary Examiner
Art Unit 3748